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IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH, NORTHERN DIVISION

EAGLE VIEW TECHNOLOGIES, INC., and PICTOMETRY INTERNATIONAL CORP.,

Plaintiffs,

 \mathbf{v}_{ullet}

NEARMAP US, INC.,

Defendant.

COMPLAINT AND DEMAND FOR JURY TRIAL

Case No.	
ludge	

Plaintiffs Eagle View Technologies, Inc. ("EagleView") and Pictometry International Corp. ("Pictometry") (collectively, "Plaintiffs"), by their undersigned attorneys, for their Complaint against Defendant Nearmap US, Inc. ("Nearmap" or "Defendant"), hereby allege as follows:

NATURE OF ACTION

- 1. This is an action for patent infringement. Over the course of more than a decade, Plaintiffs have developed technologies and products that produce aerial roof reports that are extremely accurate and detailed. These reports are used, *inter alia*, to estimate the costs of roof repairs, construction, and insurance. Plaintiffs are market leaders in providing technologies relating to such reports in the construction, government, solar, and insurance markets. Nearmap directly competes with Plaintiffs, including in at least the construction, government, insurance, and solar markets, with at least rooftop aerial measurement products, including (1) Nearmap on OpenSolar and (2) MapBrowser (collectively, "Accused Products").
- 2. Plaintiffs EagleView and Pictometry now bring this action to halt Nearmap's infringement of eight (8) patents, and obtain other relief as necessary. As more fully described below, Nearmap infringes each of United States Patent Nos. 8,209,152; 8,542,880; 8,593,518; 8,670,961; 9,135,737; 9,514,568; 10,528,960; and 10,685,149 (collectively, "Patents-in-Suit") in connection with the Accused Products.

THE PARTIES

3. Plaintiff Eagle View Technologies, Inc. is a corporation organized and existing under the laws of the State of Washington, having a principal place of

business at 25 Methodist Hill Drive, Rochester, NY 14623. EagleView launched in 2008, and was the first remote aerial roof measurement service. EagleView has developed and continues to develop products and technologies that produce aerial roof and wall measurement reports. These reports are used, *inter alia*, to estimate the costs of roof repairs, construction, and insurance. EagleView's roof reports are used by a wide range of organizations, large and small, across a number of industries, including the government, construction, insurance, and solar industries.

- 4. Plaintiff Pictometry International Corp. is a corporation organized and existing under the laws of the State of Delaware, having a principal place of business at 25 Methodist Hill Drive, Rochester, NY 14623. Pictometry, which was founded in 1996, is an innovator of, among other things, aerial oblique image capture and processing technologies.
- 5. In January 2013, a merger between EagleView and Pictometry resulted in the creation of a new company called EagleView Technology Corporation ("EVT"), which is comprised of EagleView and Pictometry.
- 6. Defendant Nearmap is a corporation organized and existing under the laws of the State of Delaware, having a regular and established place of business at 10897 S. River Front Pkwy, Suite 150, South Jordan, Utah 84095. Nearmap directly competes with EagleView and Pictometry including in the construction, insurance,

and solar markets, with at least the Accused Products.

PATENTS-IN-SUIT

- 7. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 8,209,152 (the "'152 Patent"), entitled "Concurrent Display Systems and Methods for Aerial Roof Estimation," which was issued by the USPTO on June 26, 2012. A true and correct copy of the '152 Patent is attached hereto as Exhibit 1.
- 8. The '152 Patent was subject to an *inter partes review* (IPR2016-00591), after which Claims 2, 4, 5, 7, 8, 10, 11, 15, 17, 18, 20, 21, 24, and 25 remain valid and enforceable. The '152 Patent was also subject to another *inter partes review* (IPR2017-00034) in which institution was denied.
- 9. Pictometry is the owner of the entire right, title, and interest in and to United States Patent No. 8,542,880 (the "'880 Patent"), entitled "System and Process for Roof Measurement Using Aerial Imagery," which was issued by the USPTO on September 24, 2013. A true and correct copy of the '880 Patent is attached hereto as Exhibit 2.
- 10. The '880 Patent was subject to an *inter partes review* (IPR2016-00594) in which claims 1–10 and 13–20 were instituted upon but remained valid and enforceable. Thus, all claims of the '880 Patent are valid and enforceable.

- 11. Pictometry is the owner of the entire right, title, and interest in and to United States Patent No. 8,593,518 (the "'518 Patent"), entitled "Computer System for Continuous Oblique Panning," which was issued by the USPTO on November 26, 2013. A true and correct copy of the '518 Patent is attached hereto as Exhibit 3.
 - 12. All claims of the '518 Patent are valid and enforceable.
- 13. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 8,670,961 (the "'961 Patent"), entitled "Aerial Roof Estimation Systems and Methods," which was issued by the USPTO on March 11, 2014. A true and correct copy of the '961 Patent is attached hereto as Exhibit 4.
 - 14. All claims of the '961 Patent are valid and enforceable.
- 15. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 9,135,737 (the "'737 Patent"), entitled "Concurrent Display Systems and Methods for Aerial Roof Estimation," which was issued by the USPTO on September 15, 2015. A true and correct copy of the '737 Patent is attached hereto as Exhibit 5.
- 16. The '737 Patent was subject to an *inter partes review* (IPR2016-00592) in which claims 1, 9, 10, 16, 19, 22, 25–28, 31, and 34–36 were instituted upon but remained valid and enforceable. Thus, all claims of the '737 Patent are valid and enforceable.

- 17. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 9,514,568 (the "'568 Patent"), entitled "Aerial Roof Estimation Systems and Methods," which was issued by the USPTO on December 6, 2016. A true and correct copy of the '568 Patent is attached hereto as Exhibit 6.
 - 18. All claims of the '568 Patent are valid and enforceable.
- 19. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 10,528,960 (the "'960 Patent"), entitled "Aerial Roof Estimation Systems and Methods," which was issued by the USPTO on January 7, 2020. A true and correct copy of the '960 Patent is attached hereto as Exhibit 7.
 - 20. All claims of the '960 Patent are valid and enforceable.
- 21. EagleView is the owner of the entire right, title, and interest in and to United States Patent No. 10,685,149 (the "'149 Patent"), entitled "Pitch Determination Systems and Methods for Aerial Roof Estimation," which was issued by the USPTO on June 16, 2020. A true and correct copy of the '149 Patent is attached hereto as Exhibit 8.
 - 22. All claims of the '149 Patent are valid and enforceable.
- 23. The Patents-in-Suit are directed to specific concrete improvements in roof-estimation technology that, among other things, rely on unconventional correlations of non-stereoscopic images to generate roof reports with accurate

information concerning a roof. Before EagleView's inventions, repairing or replacing a roof typically entailed asking roofing contractors to visit the house to determine the style of roof, take measurements, and to inspect the area around the house for access and cleanup before preparing a written estimate. By contrast, EagleView's Patents-in-Suit solve the specific problem of generating a roof repair estimate without direct human measurement of a roof using, *inter alia*, concrete and specific technological solution of a computer's correlating, with or without user input, different location points on two, different, non-stereoscopic aerial views and then generating a roof report including accurate information concerning the real-world roof.

- 24. For example, all Patents-in-Suit claim using specific, tangible inputs that are, in no way, required by merely using a computer, including multiple aerial images that are taken from different angles and in some cases, at different times. There are countless other ways one could try to develop a roof measuring system other than using EagleView's patented selection of images, but Nearmap has chosen to use EagleView's patented ways.
- 25. The Patents-in-Suit also use specific, tangible methods of analyzing those inputs. For example, the '568 Patent teaches improving a computer system by "calibrating" and "correlating" multiple aerial images by, *inter alia*, "registering

pairs of points" on both aerial images that "correspond[] to a same point on the roof depicted in" each of the images, which is then used to "generate" a "threedimensional model of the roof," and subsequently output a tangible "roof estimate report" that includes measurements of the roof. Likewise, the '960 Patent improves a computer system to "calibrate" those two different images, including by "identifying common reference points depicted" in the images and using that correlation and/or calibration to "convert a distance in pixels... into a physical length," which is likewise used to generate the tangible "roof [estimate] report." Similarly, the '961 Patent improves a computer system that "calibrate[s]" and "analy[zes]" those two different images and generates a "pitch for each one of a plurality of roof sections" based on that analysis, which is ultimately used to output the tangible "roof report" that "includes the pitch of each of the plurality of roof sections."

26. The Patents-in-Suit also use adjustments to claimed points, markers, and lines overlaid on 2D images of roofs to display, process, and generate 3D models and roof-estimate reports more efficiently and accurately than was possible using conventional procedures. Indeed, many of the Patents-in-Suit require specific adjustments to a model of the roof, claiming interactive tools through which the user makes specific selections and determinations that results in a practical, useful result.

For example, the '152 Patent requires "receiving an indication of a feature of the [roof]," and then based on that indication, "modifying a three-dimensional model." Others, such as the '880 Patent, require the manipulation of "visual marker[s]," which are used to allow a computer system to identify specific, real-world "attributes The '152 and '737 Patents further require overlaying "line of a roof structure." drawings" in a user interface, which the user can manipulate to indicate specific realworld "feature[s] of the roof" in selected aerial images, which are then used to ultimately calculate the real-world measurements for that roof. And still others, such as the '149 Patent, "receiv[e], based on alignment of the displayed interactive user interface control," an indication from the user of the pitch of a roof section, which is then subsequently used to "modify a model" of the real-world roof and generate measurements. Similarly, the '518 Patent describes displaying partially overlapping images, whereby detection of a "transition event" that is "triggered by a user" modifies the display, and the images' pixel coordinates are translated into location coordinates.

27. The Patents-in-Suit, including the '152, '961, '737, '568, '960, and '149 Patents, also output a tangible "roof estimate report," including roof reports that include, *inter alia*, "one or more top plan views," and are "annotated" in a number of ways, including with "numerical values that indicate a corresponding pitch," and

the "length of edges of at least some of the plurality of roof sections using at least two different indicia for different types of roof properties."

- 28. Developing a system that uses the specific images and methods covered by the Patents-in-Suit—as opposed to the countless other ways one could try to develop a roof measuring system—is neither abstract, nor in any way preempts the field of roof measuring. Instead, the Patents-in-Suit cover specific and concrete processes that achieve the highest echelon of accuracy, which could not be accomplished manually and without using EagleView's inventive concepts.
- 29. EagleView's technology was undeniably inventive, revolutionary, and critical to this industry. After a multi-week trial, a federal court in the District of New Jersey concluded that "the evidence at trial revealed that EagleView's patented technology revolutionized the roofing industry" and "obviated the need for manual measurements of roofs with a tape measure in order to estimate the cost of repairing a roof." *See* Ex. 9 at 7. The Court concluded that there were "at least three clear advantages" to EagleView's patented technology, which included patents related to many of the Patents-in-Suit, including "improved safety," "decreased measurement time," and, "perhaps most importantly, increased accuracy." *Id.* There can be no doubt that this technology was critical to the industry, as even the Court concluded that "[t]he evidence regarding this breakthrough was overwhelming." *Id.*

- 30. Some of that "overwhelming" evidence included praise of the technologies of the EagleView asserted patents by Verisk and Xactware, two of the former competitive leaders in this space, who noted that EagleView's technology was "cutting-edge," "very accurate," "innovative," "a breakthrough," and was unlike "anything that [previously] emerged as possible." *Id* at 7-8.
- 31. Other evidence included press contemporaneous with EagleView's launch, including a CNN Money article titled "One small company reinvents a \$30 billion market," which noted that "EagleView founder Chris Pershing changed how the roofing industry operates with a software breakthrough." *See* Ex. 10.
- 32. Likewise, the California Business Journal wrote about EagleView's launch, noting that "EagleView made one of the biggest breakthroughs in the history of the industry by creating a state-of-the-art software program that remotely snaps sophisticated aerial pictures of roofs and accurately measures lengths, pitches, valleys, and other hard-to-see areas on roofs." *See* Ex. 11.

JURISDICTION AND VENUE

- 33. This is an action for patent infringement arising under the provisions of the Patent Laws of the United States of America, Title 35, United States Code.
- 34. Subject matter jurisdiction over Plaintiffs' claims is conferred upon this Court by 28 U.S.C. §§ 1331 and 1338(a).

- 35. This Court has personal jurisdiction over Nearmap because, *inter alia*, Nearmap: (1) has substantial, continuous, and systematic contacts with this State; (2) has solicited business in, transacted business within, and attempted to derive financial benefit from residents of Utah, on a substantial and not isolated basis; (3) has committed and continues to commit purposeful actions in this State that infringe the Patents- in-Suit; (4) enjoys substantial income from such infringement in this State; and (5) maintains a regular and established place of business in this State, including by maintaining employees in this State. For example, Nearmap's website lists its South Jordan, Utah office on its "Contact Us" webpage. *See*, *e.g.*, Ex. 25.
- 36. Venue is proper in this Court under 28 U.S.C. §§ 1391 and 1400(b) because Nearmap maintains a regular and established place of business in this District, has committed acts of infringement in this District, and is subject to personal jurisdiction in this District.

COUNT I - INFRINGEMENT OF THE '152 PATENT BY NEARMAP

- 37. Plaintiffs reallege paragraphs 1-36 as if fully set forth herein.
- 38. The USPTO duly and legally issued the '152 Patent on June 26, 2012.
- 39. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '152 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.

- 40. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '152 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).
- 41. Exemplary claim 10 of the '152 Patent, which depends from Claim 1, recites:

The method of claim 1 further comprising:

displaying a marker operable to specify a point on an image;

receiving, via the marker, an indication of a point on the first aerial image; and

registering, based on the received indication of the point, the aerial image to a reference grid corresponding to the three-dimensional model.

42. Claim 1 of the '152 Patent recites:

A computer-implemented method for generating a roof estimate report, the method comprising:

displaying a first and a second aerial image of a building having a roof, each of the aerial images providing a different view of the roof of the building;

receiving an indication of a feature of the building shown in the first aerial image;

modifying a three-dimensional model of the roof based on the received indication of the feature of the building; and

displaying a projection of the feature from the modified three-

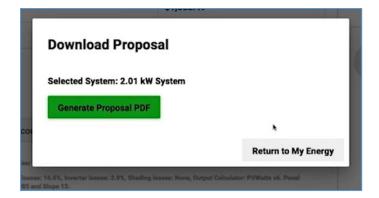
dimensional model onto the first and second aerial images as a line drawing of the feature, each overlaid on corresponding locations of the feature on the first and second aerial images.

43. Nearmap's Accused Products infringe at least claim 10 of the '152 Patent, including by Nearmap's use of the Accused Products to perform the claimed methods. As one example, Nearmap on OpenSolar infringes claim 10. Nearmap on OpenSolar provides a computer-implemented method for generating a roof estimate report. For example, as shown in the YouTube tutorial for Nearmap on OpenSolar, the method of generating a roof report is computer implemented:



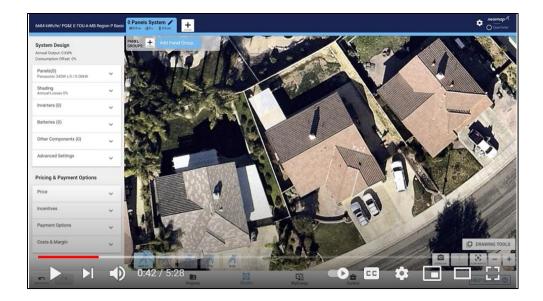
See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

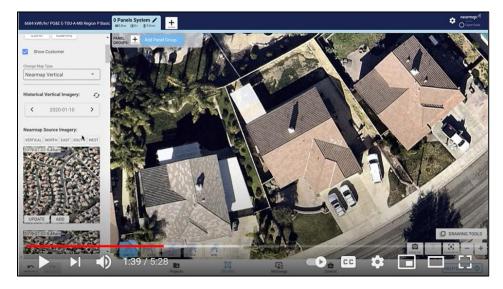
44. Nearmap on OpenSolar generates a roof estimate report, called a "proposal":



See https://www.nearmap.com/content/dam/nearmap/video/nearmap-on-opensolar/announcing-nearmap-on-opensolar.mp4.

45. Nearmap on OpenSolar displays a first and a second aerial image of a building having a roof, each of the aerial images providing a different view of the roof of the building. For example, Nearmap on OpenSolar displays a top down (vertical) view of the house in the first screenshot below, and users can also access oblique images, as shown in the second screenshot below depicting North, East, South, and West oblique views at the bottom and left of the screen:



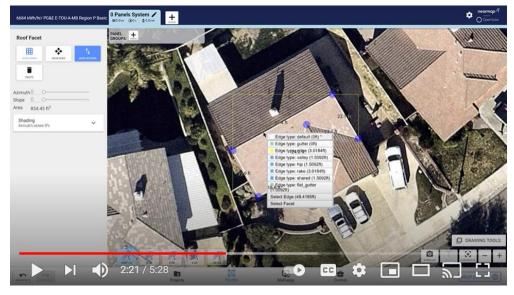


See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

46. Nearmap on OpenSolar receives an indication of a feature of the building shown in the first image, and modifies a three-dimensional model of the roof based on the received indication of the feature of the building. For example, Nearmap on OpenSolar displays line drawings representing features of the roof on

the first and second aerial images, and instructs a user to "outline your roof and set edge types" in the first (vertical) image:





 $See\ https://www.youtube.com/watch?v=XDwZniue-TU\ (Nearmap\ on\ OpenSolar).$

47. Nearmap on OpenSolar then displays line drawings representing features of the roof on the second aerial image, and instructs a user to "align map

and roof edges in the oblique view" in the second (oblique) image:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

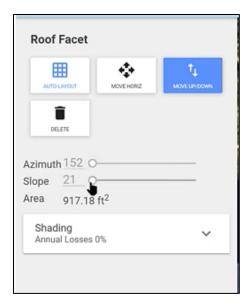
- 48. When a user toggles between different views of the same roof, the wireframe has corresponding changes to changes made to the wireframe while in a different view. Thus, Nearmap on OpenSolar displays a projection of the feature from the modified three-dimensional model onto the first and second aerial images as a line drawing of the feature, each overlaid on corresponding locations of the feature on the first and second aerial images, as shown above.
- 49. Nearmap on OpenSolar also displays a marker operable to specify a point on an image. For example, the purple points allowing a user to specify and indicate the corners in the aerial image, and/or the yellow line allowing a user to

specify the ridge line of the roof, are the marker:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

50. Nearmap on OpenSolar receives, via the marker, and indication of a point on the first aerial image and registers, based on the received indication of the point, the aerial image to a reference grid corresponding to the three-dimensional model. For example, based on the received indication of the point (e.g., a point showing a corner or a line showing pitch), Nearmap on OpenSolar registers the aerial images to a reference grid corresponding to the 3D model:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 3:24-28.

51. Nearmap on OpenSolar uses Nearmap's vertical and oblique aerial images. These images are captured using the georeferencing technique described below, whereby georeferencing of aerial images further facilitates registering them to a reference grid:

GPS coordinates and PPP

Our capture process uses GPS coordinates, which are further refined using PPP (Precise Point Positioning). Because of this, the resulting imagery is georeferenced using ITRF2014 at the epoch of capture.

For example, the epoch of a capture from May 1, 2018 is ITRF2014(2018.329). With ITRF2014 being an earth-fixed datum (as opposed to plate-fixed datums such as GDA94 or NAD83), imagery aligned to ITRF is subject to continental drift. For example, in Australia the movement is 70mm per year and some parts of the US move at about 14mm per year. In order to compensate for the continental drift, we provide plate-fixed projections through WMS and reverse the shift by a variable amount depending on the capture epoch. Those projections are based on either GDA94/GDA2020 (Australia) or NAD83 (US). As a consequence, we encourage you to use one of the plate-fixed projections in order to minimise misalignment in your GIS application, especially using surveys captured years apart.

This information should aid you in correctly georeferencing our imagery. We found that in most cases, it is sufficient to use one of our NAD83 or GDA94/GDA2020 projections to eliminate positional errors due to datum differences.

See Ex. 12.

- 52. On information and belief, Nearmap has had knowledge of the '152 Patent since at least as early July 2, 2019, when it submitted an Information Disclosure Statement (IDS) identifying the '152 Patent to the USPTO during the prosecution of its own U.S. Patent Application No. 16/136,585. *See* Ex. 13. On information and belief, Nearmap has had additional knowledge of the '152 Patent prior the filing of the instant complaint because the '152 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. Nearmap's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that Nearmap monitors EagleView's website, products, roof reports, and patents. *See, e.g.*, Ex. 26.
 - 53. Additionally, Nearmap would have been aware of the substantial press

coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '152 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.

- 54. In addition to directly infringing the '152 Patent, Nearmap has in the past and continues to indirectly infringe the '152 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least one claim of the '152 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '152 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '152 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).
- 55. Nearmap's infringement of the '152 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '152 Patent and without a

reasonable basis for a good-faith belief that it would not be liable for infringement of the '152 Patent. For example, subsequent to learning of the '152 Patent, Nearmap continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '152 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '152 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '152 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

- 56. Nearmap's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from Nearmap the damages sustained by EagleView as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 57. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.
- 58. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

<u>COUNT II - INFRINGEMENT OF THE '880 PATENT BY NEARMAP</u>

- 59. Plaintiffs reallege paragraphs 1-58 as if fully set forth herein.
- 60. The USPTO duly and legally issued the '880 Patent on September 24, 2013.
- 61. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '880 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 62. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '880 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).
 - 63. Claim 1 of the '880 Patent recites:

A process for determining attributes of a roof structure of a real-world three-dimensional building, comprising the acts of:

providing at least one computer input field for a user to input first location data generally corresponding to the location of the building;

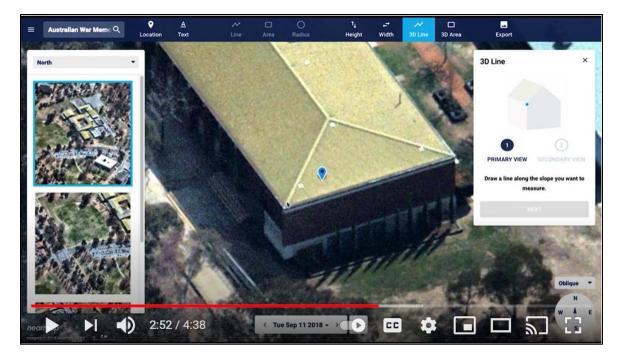
providing visual access to an aerial image of a region including the roof structure of the building corresponding to said first location data, the aerial image taken from a straight down overhead view with respect to the roof structure;

on the aerial image of the region, providing a visual marker that is moveable on a computer monitor around said region, said visual marker initially corresponding to said first location data, wherein said visual marker may be moved to a final location on top of the building to more precisely identify the location of the building roof structure, the final location having location coordinates;

providing a computer input capable of signaling user-acceptance of the final location of said marker; and,

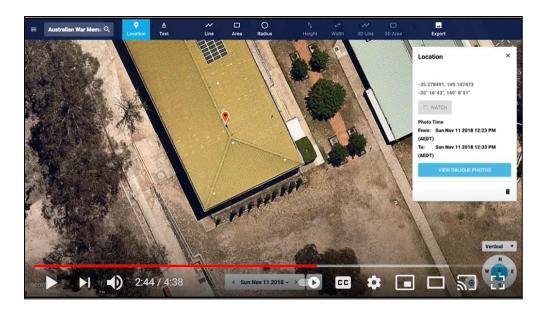
providing visual access to one or more oblique images of an aerial imagery database corresponding to location coordinates of the final location.

- 64. Nearmap's Accused Products infringe at least claim 1 of the '880 Patent. As one example, MapBrowser infringes claim 1.
- 65. MapBrowser implements a process for determining attributes of a roof structure of a real-world three-dimensional building. For example, the screenshot below, from a video titled "MapBrowser Tutorial Part 2 How to Measure with Obliques," depicts a process for determining attributes of a roof structure of a real-world three-dimensional building:



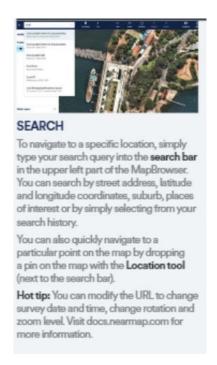
See https://www.youtube.com/watch?v=zMFjaQIci9s (MapBrowser).

- 66. MapBrowser provides at least one computer input field for a user to input first location data generally corresponding to the location of the building, as shown, for example, in the top left corners of the user interface, shown above, in which a user has entered location information for the "Australian War Memorial."
- 67. MapBrowser provides visual access to an aerial image of a region including the roof structure corresponding to the first location data (e.g., address entered by the user), and the aerial images is taken from a straight down overhead view with respect to the roof structure (for example, a top down image is displayed prior to a user clicking on "View Oblique Photos"):



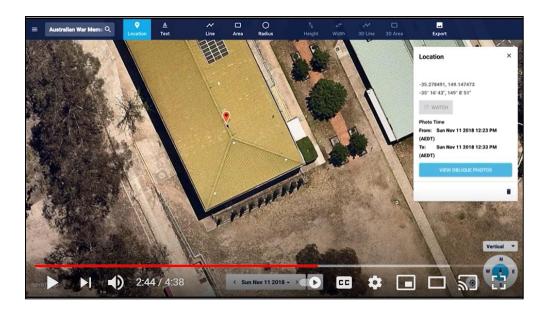
See https://www.youtube.com/watch?v=zMFjaQIci9s (MapBrowser).

MapBrowser provides a visual marker that is moveable on a computer monitor around said region, said visual marker initially corresponding to said first location data, wherein said visual marker may be moved to a final location on top of the building to more precisely identify the location of the building roof structure, the final location having location coordinates. For example, a user has the ability to "drop a pin" and move it around, as shown in the video above, as well as in the "MapBrowser Cheat Sheet" below:

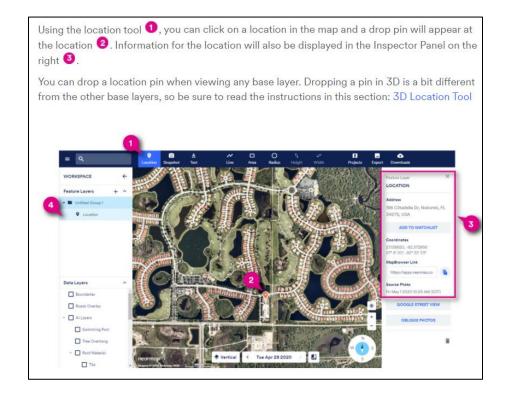


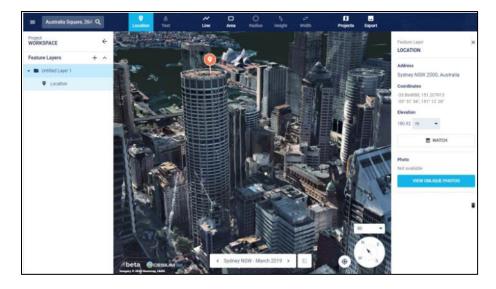
See Ex. 14.

69. MapBrowser provides a computer input capable of signaling user-acceptance of the final location of said marker. For example, the computer input is the ability for a user to click "Oblique Photos" in the lower right corner after the marker is where they want it:



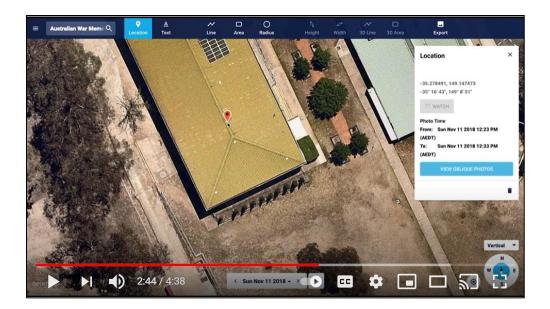
See https://www.youtube.com/watch?v=zMFjaQIci9s (MapBrowser).



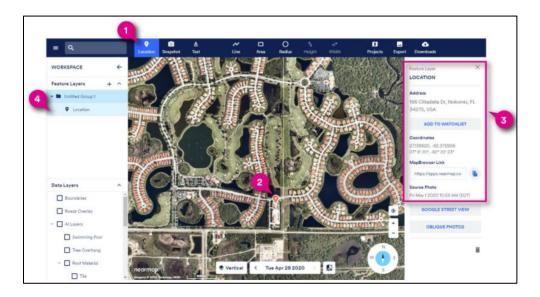


See Ex. 15 (MapBrowser).

70. MapBrowser provides visual access to one or more oblique images of an aerial imagery database corresponding to location coordinates of the final location. For example, after a user clicks on "Oblique Photos," the user can view the oblique photos of the address corresponding to the location coordinates of the final location where the marker was placed:



See https://www.youtube.com/watch?v=zMFjaQIci9s (MapBrowser).



See Ex. 15 (MapBrowser).

71. Nearmap explains that MapBrowser is "a web-based application for searching and navigating Nearmap's library of current and historical aerial photos." These photos accessible in MapBrowser include oblique images of an aerial imagery

database corresponding to location coordinates of the final location:

Each Nearmap ObliqueTM subscription includes access to Nearmap Oblique, Nearmap Panorama, Nearmap Vertical, and MapBrowserTM, a web-based application for searching and navigating Nearmap's library of current and historical aerial photos. MapBrowserTM includes powerful, intuitive tools for measuring, designing, and analyzing locations.

See Ex. 16.

- Patent prior to the filing of the instant complaint, including because the '880 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. Nearmap's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that Nearmap monitors EagleView's website, products, roof reports, and patents. *See, e.g.*, Ex. 26. Additionally, Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '880 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.
- 73. In addition to directly infringing the '880 Patent, Nearmap has in the past and continues to indirectly infringe the '880 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap

knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least one claim of the '880 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '880 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '880 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

74. Nearmap's infringement of the '880 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '880 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '880 Patent. For example, subsequent to learning of the '880 Patent, Nearmap continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '880 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '880 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the

'880 Patent has been and continues to be willful, entitling Pictometry to enhanced damages under 35 U.S.C. § 284.

- 75. Nearmap's acts of infringement have caused damage to Pictometry, and Pictometry is entitled to recover from Nearmap the damages sustained by Pictometry as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 76. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Pictometry for which there is no adequate remedy at law.
- 77. This case is exceptional, entitling Pictometry to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT III - INFRINGEMENT OF THE '518 PATENT BY NEARMAP

- 78. Plaintiffs reallege paragraphs 1-77 as if fully set forth herein.
- 79. The USPTO duly and legally issued the '518 Patent on November 26, 2013.
- 80. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '518 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 81. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as

such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '518 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

82. Claim 1 of the '518 Patent recites:

A sequence of instructions stored on at least one non-transitory computer readable medium for running on a computer system capable of displaying and navigating oblique imagery, comprising:

instructions for displaying a pixel representation of a primary oblique image depicting a first area, the primary oblique image being part of a set of adjacent oblique images that partially, but not completely, overlap and represent an area of interest;

instructions for panning within the primary oblique image, the primary oblique image including overlapping data;

instructions for detecting a transition event, triggered by a user, of the displayed primary oblique image;

instructions for selecting at least one adjacent secondary oblique image depicting a second area partially overlapping with the first area and from the set of oblique images corresponding to a supplied location coordinate, the second area extending beyond the first area; and

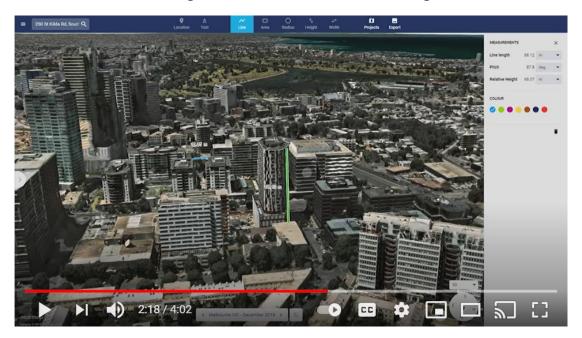
instructions for displaying the primary oblique image and the at least one adjacent secondary oblique image on a same display such that features in the adjacent primary and secondary oblique images are aligned on the same display;

wherein the primary and secondary oblique images match the perspectives from which the primary and secondary oblique images were captured.

83. Nearmap's Accused Products infringe at least claim 1 of the '518

Patent. As one example, MapBrowser infringes claim 1.

84. MapBrowser includes a sequence of instructions stored on a non-transitory computer readable medium for running on a computer system capable of displaying and navigating oblique imagery. Additionally, MapBrowser includes instructions for displaying a pixel representation of a primary oblique image depicting a first area, the primary oblique image being part of a set of adjacent oblique images that partially, but not completely, overlap and represent an area of interest, as shown, for example, in the user interface for MapBrowser 3D below:

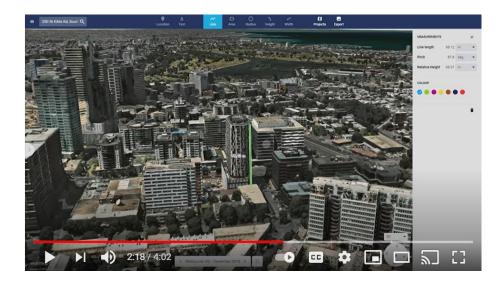


See https://www.youtube.com/watch?v=ZM5HM_kCUF4 (MapBrowser 3D).

85. MapBrowser includes instructions for panning within the primary oblique image, the primary oblique image including overlapping data. For example, a user can grab the screen and rotate to different angles (*e.g.*, to the left and the right, or up and down).

86. MapBrowser includes instructions for detecting a transition event, triggered by a user, of the displayed primary oblique image. For example, when the user rotates a certain number of degrees to the left, right, up, or down, a transition event is detected. For example, the same YouTube video of a user in Nearmap 3D shows that the view provided by the images needs to be re-loaded at a certain point in the rotation:





- 87. MapBrowser includes instructions for selecting at least one adjacent secondary oblique image depicting a second area partially overlapping with the first area and from the set of oblique images corresponding to a supplied location coordinate, the second area extending beyond the first area. On information and belief, this is the case based on the new images loaded in the video at 2:18 versus 2:10, while the same picture of the building of interest (with the green line showing height) remains displayed.
- 88. MapBrowser includes instructions for displaying the primary oblique image and the at least one adjacent secondary oblique image on a same display such that features in the adjacent primary and secondary oblique images are aligned on the same display. For example, common features of the building of interest are visible in the view from multiple different angles, such that the first and second oblique images are adjacent and aligned on the same display.
- 89. In MapBrowser, the primary and secondary oblique images match the perspectives from which the primary and secondary oblique images were captured. For example, Nearmap records the perspectives (*e.g.*, angles, height) from which its aerial images were taken. Thus, on information and belief, the primary and secondary oblique images displayed match the perspectives from which they were captured:

GPS coordinates and PPP

Our capture process uses GPS coordinates, which are further refined using PPP (Precise Point Positioning). Because of this, the resulting imagery is georeferenced using ITRF2014 at the epoch of capture.

For example, the epoch of a capture from May 1, 2018 is ITRF2014(2018.329). With ITRF2014 being an earth-fixed datum (as opposed to plate-fixed datums such as GDA94 or NAD83), imagery aligned to ITRF is subject to continental drift. For example, in Australia the movement is 70mm per year and some parts of the US move at about 14mm per year. In order to compensate for the continental drift, we provide plate-fixed projections through WMS and reverse the shift by a variable amount depending on the capture epoch. Those projections are based on either GDA94/GDA2020 (Australia) or NAD83 (US). As a consequence, we encourage you to use one of the plate-fixed projections in order to minimise misalignment in your GIS application, especially using surveys captured years apart.

This information should aid you in correctly georeferencing our imagery. We found that in most cases, it is sufficient to use one of our NAD83 or GDA94/GDA2020 projections to eliminate positional errors due to datum differences.

Nearmap also uses ground control points to verify our accuracy claims. Characteristics of our ground control points include good visibility, precise location, accurate location, and open ground location. In essence, this means that the sample of ground points used are clearly identifiable in our aerial imagery without ambiguity, have a high accuracy of less than 2cm, and are not subject to terrain distortions.

See Ex. 12.

90. As another example, Nearmap explains that users can click between different views of aerial images within MapBrowser:

SHIFT PERSPECTIVES

Within MapBrowser, a simple click of the compass tool lets you switch between orthoimagery and oblique views — topdown, plus what's all around.

See Ex. 17.

91. On information and belief, Nearmap has had knowledge of the '518 Patent prior to the filing of the instant complaint. For example, Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it

relates to roof reports, which includes the '518 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.

- In addition to directly infringing the '518 Patent, Nearmap has in the 92. past and continues to indirectly infringe the '518 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least one claim of the '518 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '518 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '518 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).
- 93. Nearmap's infringement of the '518 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '518 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement

of the '518 Patent. For example, subsequent to learning of the '518 Patent, Nearmap continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '518 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '518 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '518 Patent has been and continues to be willful, entitling Pictometry to enhanced damages under 35 U.S.C. § 284.

- 94. Nearmap's acts of infringement have caused damage to Pictometry, and Pictometry is entitled to recover from Nearmap the damages sustained by Pictometry as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 95. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Pictometry for which there is no adequate remedy at law.
- 96. This case is exceptional, entitling Pictometry to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT IV - INFRINGEMENT OF THE '961 PATENT BY NEARMAP

97. Plaintiffs reallege paragraphs 1-96 as if fully set forth herein.

- 98. The USPTO duly and legally issued the '961 Patent on March 11, 2014.
- 99. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '961 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 100. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '961 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

101. Claim 1 of the '961 Patent recites:

A computing system for generating a roof report, the computing system comprising:

a memory; and

a roof estimation module that includes a calibration module, the roof estimation module being stored on the memory and being configured, when executed, to:

receive a plurality of aerial images of a building having a roof, the plurality of aerial images having been taken independent of each other, at different times and on different dates, the aerial images providing different views from each other of the roof of the building, the plurality of aerial images including at least a first aerial image that is a top plan view of the roof and a second aerial image that is an oblique perspective view of the roof wherein at least one of the first and/or second aerial images is calibrated using calibration information received from the calibration module;

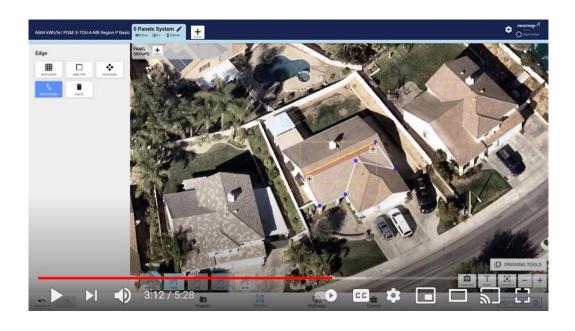
perform image analysis on at least two of the plurality of aerial images;

calculate a pitch for each one of a plurality of roof sections of the roof based on the image analysis;

generate a roof report that includes the pitch of each of the plurality of roof sections based on the calculated pitch; and

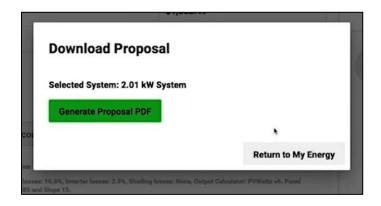
output the roof report, wherein the roof report includes one or more top plan views of a model of the roof annotated with numerical values that indicate a corresponding pitch, area, and length of edges of at least some of the plurality of roof sections using at least two different indicia for different types of roof properties.

- 102. Nearmap's Accused Products infringe at least claim 1 of the '961 Patent. As one example, Nearmap on OpenSolar infringes claim 1.
- 103. Nearmap on OpenSolar include a computing system for generating a roof report. For example, as shown in the YouTube tutorial for Nearmap on OpenSolar, the method of generating a roof report is computer implemented:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

104. Nearmap on OpenSolar generates a roof estimate report, called a "proposal":



See https://www.nearmap.com/content/dam/nearmap/video/nearmap-on-opensolar/announcing-nearmap-on-opensolar.mp4 (Nearmap on OpenSolar).

105. The computing system of Nearmap on OpenSolar includes a memory. For example, projects can be saved and stored to return to later:



See Ex. 18 (Nearmap on OpenSolar).

106. Nearmap on OpenSolar includes a roof estimation module that includes a calibration module stored on the memory. When executed, the roof estimation module receives a plurality of aerial images of a building having a roof, the plurality

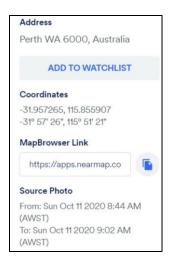
of aerial images having been taken independent of each other, at different times and on different dates, the aerial images providing different views from each other of the roof of the building. For example, Nearmap on OpenSolar uses Nearmap's vertical and oblique imagery, and Nearmap explains that it can take "several days and multiple flights" to complete a survey of a particular area, and that aerial images of the same location may have been taken on different dates:



See Ex. 18 (Nearmap on OpenSolar).

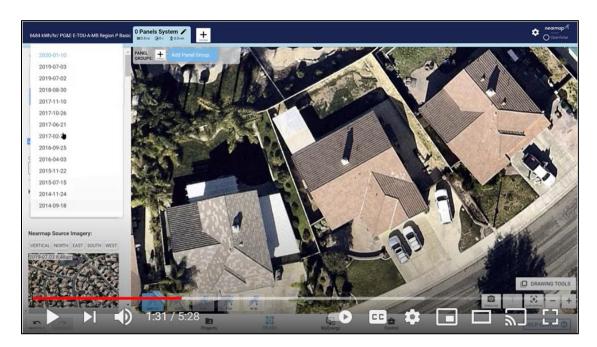
When we fly a new survey it may take several days and multiple flights to complete, depending on the size of the survey, weather conditions and air traffic control. Once published, the date of the first flight of the survey is displayed at the top left of the page, within the MapBrowser timeline. We call this date the "Survey Date"."

When you view a location with the location tool you will also be given the date and time that specific photo was taken.



See Ex. 19.

107. Nearmap on OpenSolar shows the user the dates for which images of the same location are available, as shown on the left in the screenshot below:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

108. Nearmap on OpenSolar receives a first aerial image that is a top plan view of the roof and a second aerial image that is an oblique perspective view of the

roof wherein at least one of the first and/or second aerial images is calibrated using calibration information received from the calibration module. The first and second aerial images are shown in the screenshots below, and they are calibrated using the geolocation and other data (such as height and angle) associated with them:





See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

109. Nearmap on OpenSolar performs image analysis on at least two of the plurality of aerial images. The image analysis includes, for example, using information about the location, angle, and height from which different aerial images were taken (including, e.g., georeferencing), and correlating features in one image to the same features in another image:

GPS coordinates and PPP

Our capture process uses GPS coordinates, which are further refined using PPP (Precise Point Positioning). Because of this, the resulting imagery is georeferenced using ITRF2014 at the epoch of capture.

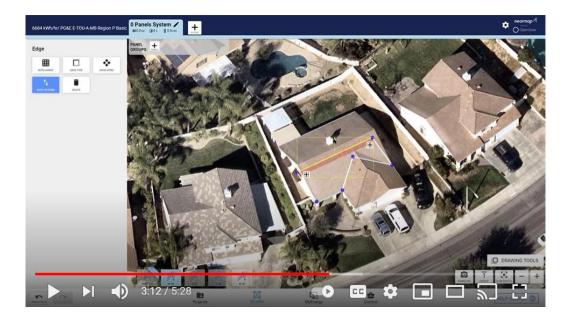
For example, the epoch of a capture from May 1, 2018 is ITRF2014(2018.329). With ITRF2014 being an earth-fixed datum (as opposed to plate-fixed datums such as GDA94 or NAD83), imagery aligned to ITRF is subject to continental drift. For example, in Australia the movement is 70mm per year and some parts of the US move at about 14mm per year. In order to compensate for the continental drift, we provide plate-fixed projections through WMS and reverse the shift by a variable amount depending on the capture epoch. Those projections are based on either GDA94/GDA2020 (Australia) or NAD83 (US). As a consequence, we encourage you to use one of the plate-fixed projections in order to minimise misalignment in your GIS application, especially using surveys captured years apart.

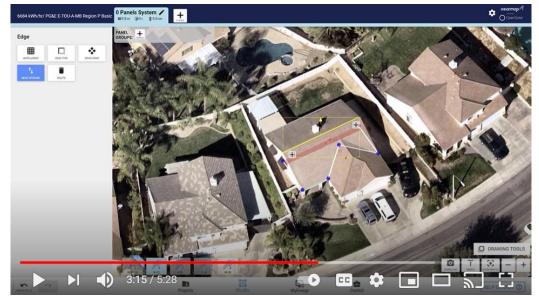
This information should aid you in correctly georeferencing our imagery. We found that in most cases, it is sufficient to use one of our NAD83 or GDA94/GDA2020 projections to eliminate positional errors due to datum differences.

Nearmap also uses ground control points to verify our accuracy claims. Characteristics of our ground control points include good visibility, precise location, accurate location, and open ground location. In essence, this means that the sample of ground points used are clearly identifiable in our aerial imagery without ambiguity, have a high accuracy of less than 2cm, and are not subject to terrain distortions.

See Ex. 12.

110. In Nearmap on OpenSolar, a user can also manually facilitate image analysis through the roof estimation module. For example, the user can help determine pitch, by placing a pitch determination marker (e.g., the yellow bar below).



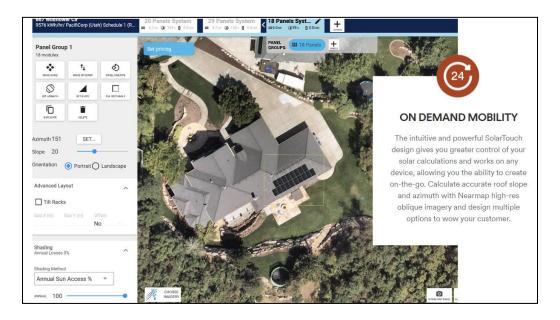


See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar).

111. Nearmap on OpenSolar calculates a pitch (e.g., "roof slope") for each one of a plurality of roof sections of the roof based on the image analysis, as shown above, as well as in the following screenshots from Nearmap on OpenSolar:

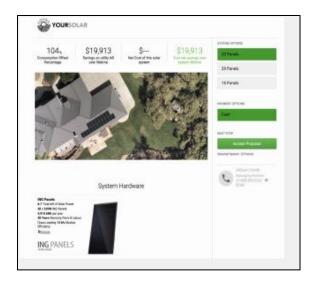


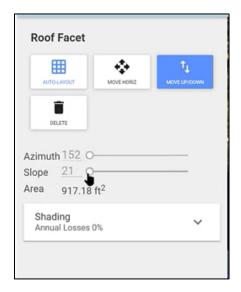
See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 3:24-28.



See Ex. 18 (Nearmap on OpenSolar).

112. Nearmap on OpenSolar generates a roof report that includes the pitch of each of the plurality of roof sections based on the calculated pitch:





See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 3:24-28.

113. Nearmap on OpenSolar outputs the roof report that includes one or more top plan views of a model of the roof annotated with numerical values that indicate a corresponding pitch, area, and length of edges of at least some roof sections using at least two different indicia for different types of roof properties (such

as different colors of lines):



See

https://docs.nearmap.com/display/TUT/Module+3%3A+Design+with+Nearmap+on+OpenSolar (Nearmap on OpenSolar).

Patent prior to the filing of the instant complaint, including because the '961 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. Nearmap's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that Nearmap monitors EagleView's website, products, roof reports, and patents. *See, e.g.*, Ex. 26. Additionally, Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '961 Patent, in light of EagleView's recent successful

litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.

115. In addition to directly infringing the '961 Patent, Nearmap has in the past and continues to indirectly infringe the '961 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least one claim of the '961 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '961 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '961 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

116. Nearmap's infringement of the '961 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '961 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '961 Patent. For example, subsequent to learning of the '961 Patent, Nearmap

continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '961 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '961 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '961 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

- 117. Nearmap's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from Nearmap the damages sustained by EagleView as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 118. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.
- 119. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT V - INFRINGEMENT OF THE '737 PATENT BY NEARMAP

120. Plaintiffs reallege paragraphs 1-119 as if fully set forth herein.

- 121. The USPTO duly and legally issued the '737 Patent on September 15, 2015.
- 122. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '737 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 123. Nearmap uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '737 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

124. Claim 1 of the '737 Patent recites:

A computer-implemented method in a roof estimate report system including at least one processor and a memory coupled to the at least one processor, the method comprising:

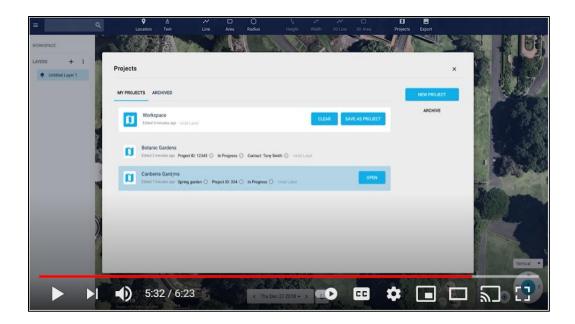
displaying, by the at least one processor of the roof estimate report system, a plurality of aerial images of a roof at the same time, each of the aerial images providing a different view, taken from a different angle of the same roof;

displaying, by the at least one processor of the roof estimate report system, respective line drawings representing features of the roof, the respective line drawings overlying a first and a second aerial image of the plurality of aerial images of the roof, the line drawing overlying the first aerial image of the roof having features in common with the line drawing overlying the second aerial image of the roof; in response to user input, changing, by the at least one processor of the roof estimate report system, the line drawing representing a feature of the roof that overlies the first aerial image of the roof;

in response to the changing, making corresponding changes, by the at least one processor of the roof estimate report system, to the line drawing overlying the second aerial image; and

generating and outputting a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building.

- 125. Nearmap's Accused Products infringe at least claim 1 of the '737 Patent, including by Nearmap's use of the Accused Products to perform the claimed method. As one example, MapBrowser infringes claim 1.
- 126. MapBrowser includes a computer-implemented method in a roof estimate report system including at least one processor and a memory coupled to the at least one processor. For example, as shown below, the method of generating a roof estimate report is computer-implemented, and a memory allows projects to be saved and returned to later:



See https://www.youtube.com/watch?v=6ijdjzQ_at0 (MapBrowser).

127. MapBrowser displays, by the at least one processor of the roof estimate report system, a plurality of aerial images of a roof at the same time, each of the aerial images providing a different view and taken from a different angle of the same roof. For example, in the MapBrowser interface (which uses Nearmap's oblique imagery, as described in the first screenshot below), a plurality of aerial images of a roof are displayed at the same time (as shown in the second screenshot below):

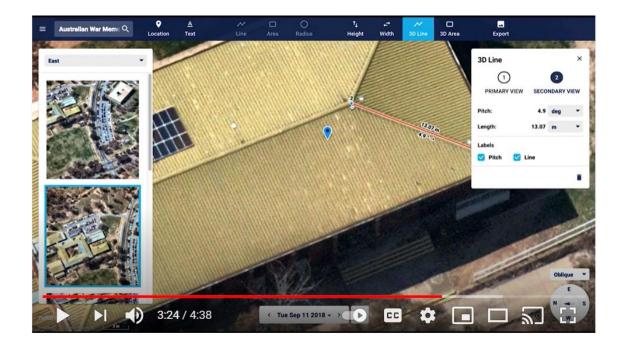
Each Nearmap Oblique™ subscription includes access to Nearmap Oblique, Nearmap Panorama, Nearmap Vertical, and MapBrowser™, a web-based application for searching and navigating Nearmap's library of current and historical aerial photos. MapBrowser™ includes powerful, intuitive tools for measuring, designing, and analyzing locations.

See Ex. 16 (MapBrowser is "a web-based application for searching and navigating Nearmap's library of current and historical aerial photos.").



See Ex. 16.

128. Below is another example in which MapBrowser displays a plurality of aerial images of the same roof from different angles at the same time:



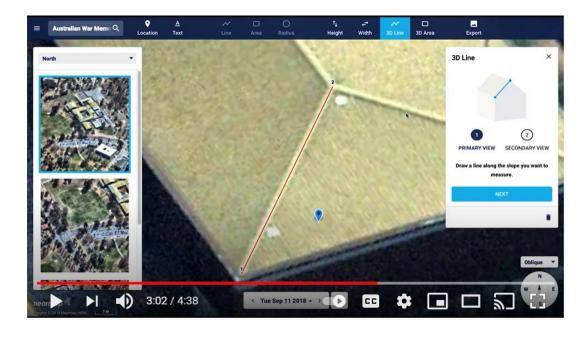
See https://www.youtube.com/watch?v=zMFjaQIci9s&t=216s (MapBrowser).

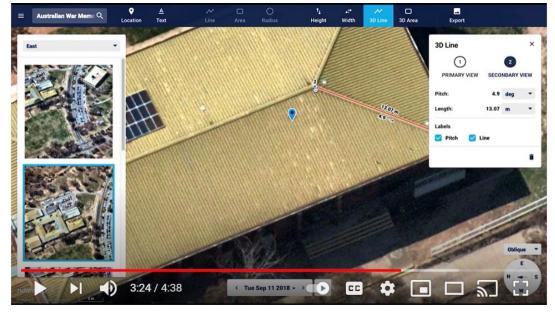
129. MapBrowser displays, by the at least one processor of the roof estimate report system, respective line drawings representing features of the roof, the respective line drawings overlying a first and a second aerial image of the plurality of aerial images of the roof, the line drawing overlying the first aerial image of the roof having features in common with the line drawing overlying the second aerial image of the roof:



See Ex. 16 (MapBrowser using Nearmap's oblique imagery).

130. As another example, a line representing a hip of the roof is displayed overlaying two different aerial images taken from different angles (e.g., in the "primary view" and "secondary view"):



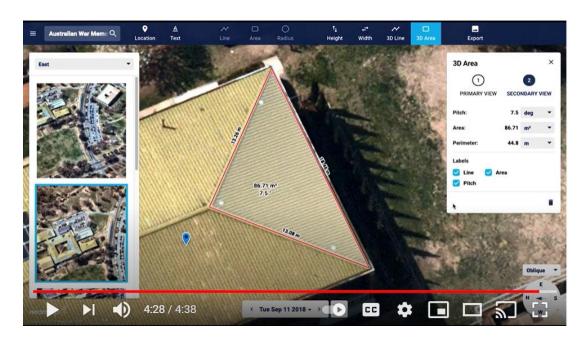


See https://www.youtube.com/watch?v=zMFjaQIci9s&t=216s (MapBrowser).

131. In response to user input, MapBrowser changes, by the at least one processor of the roof estimate report system, the line drawing representing a feature of the roof that overlies the first aerial image of the roof, and in response to the

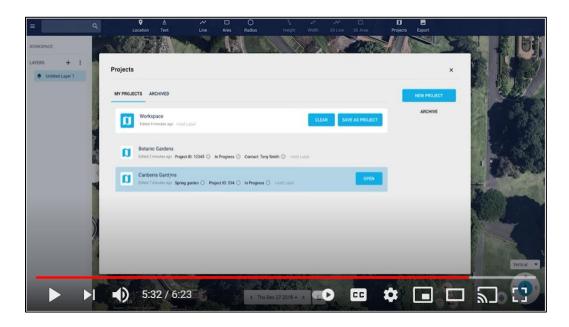
changing, MapBrowser makes corresponding changes, by the at least one processor of the roof estimate report system, to the line drawing overlying the second aerial image. For example, as shown above, after a user identified a particular roof hip on one aerial image in MapBrowser, a roof hip line appears in a second view after the user clicks on the alternative image, which constitutes MapBrowser making corresponding changes. A user may need to re-adjust the roof hip line that has appeared in the second view.

132. MapBrowser generates and outputs a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof:



See https://www.youtube.com/watch?v=zMFjaQIci9s&t=216s (MapBrowser).

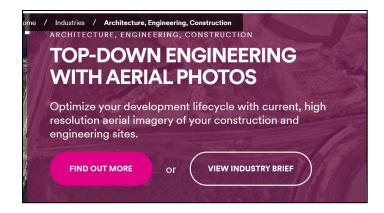
133. As another example, "Projects" can be saved, and contain the generated and outputted roof estimate report:



See https://www.youtube.com/watch?v=6ijdjzQ_at0 (MapBrowser).

- 134. The generated roof estimate report from MapBrowser is provided for repair and/or constructing the roof structure of the building:
 - Collect and annotate measurements. Verify repair estimates and right-size risk with accurate measurements of roofs, structures, facades and buildings

See Ex. 20.



See Ex. 21.

- Patent prior to the filing of the instant complaint because Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '737 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.
- 136. In addition to directly infringing the '737 Patent, Nearmap has in the past and continues to indirectly infringe the '737 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least one claim of the '737 Patent prior the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '737

Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '737 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

- 137. Nearmap's infringement of the '737 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '737 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '737 Patent. For example, subsequent to learning of the '737 Patent, Nearmap continued to use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '737 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '737 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '737 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.
- 138. Nearmap's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from Nearmap the damages sustained by

EagleView as a result of Nearmap's wrongful acts in an amount subject to proof at trial.

- 139. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.
- 140. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT VI - INFRINGEMENT OF THE '568 PATENT BY NEARMAP

- 141. Plaintiffs reallege paragraphs 1-140 as if fully set forth herein.
- 142. The USPTO duly and legally issued the '568 Patent on December 6, 2016.
- 143. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '568 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 144. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '568 Patent

under one or more subsections of 35 U.S.C. § 271, including § 271(a).

145. Claim 1 of the '568 Patent recites:

A computer-implemented method for generating a roof estimate report, the method comprising:

receiving a request for a roof estimate report for a roof of a building; receiving location information regarding the building having the roof; receiving a first aerial image of the building having the roof;

receiving a second aerial image of the building having the roof, the first and second aerial images of the building having been taken independent of each other, the first and second aerial images of the building providing different views of the roof from each other, the first aerial image of the building including a top plan view of the roof and the second aerial image of the building including an oblique perspective view of the roof;

calibrating at least one of the first and second aerial images of the building using calibration information received from a calibration module;

performing image analysis on the first and second aerial images of the building by correlating the first aerial image of the building with the second aerial image of the building, the correlating including registering pairs of points on the first and second aerial images of the building, each pair of points corresponding to a same point on the roof depicted in each of the first and second aerial images of the building;

generating, based at least in part on the correlation of the first and second aerial images of the building, a three-dimensional model of the roof that includes a plurality of planar roof sections that each have a corresponding pitch, area, and edges;

determining a pitch of a plurality of sections of the roof;

determining a direction of the pitch for each of the plurality of sections of the roof for which a pitch was determined;

generating a roof estimate report that includes at least one top plan view of the three-dimensional model annotated with numerical indications of the determined pitch and the direction of the pitch;

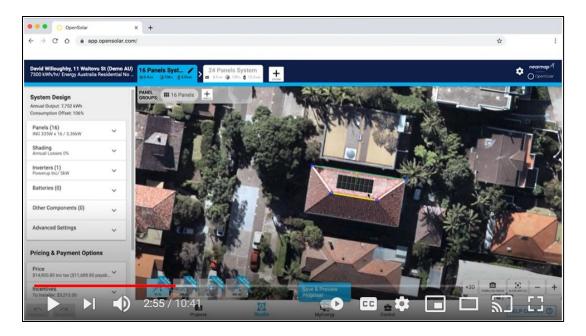
determining a ridge line and a valley line of the roof;

displaying, on at least one top plan view of the three-dimensional model included in the roof estimate report, a ridge line in which a property of the ridge line being a ridge line is conveyed by the ridge line being displayed in a first color;

displaying, on at least one top plan view of the three-dimensional model included in the roof estimate report, a valley line in which a property of the valley line being a valley line is conveyed by the valley line being a second color different from the first color; and

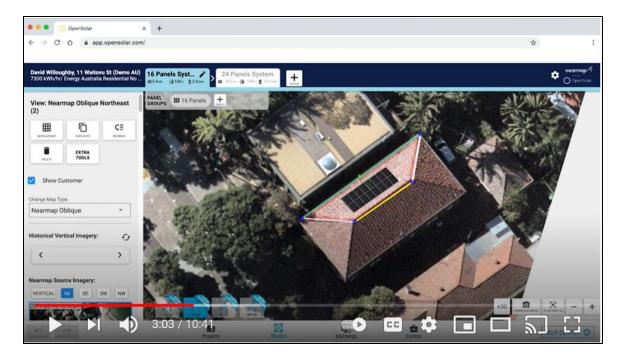
transmitting the generated roof report.

- 146. Nearmap's Accused Products infringe at least claim 1 of the '568 Patent, including by Nearmap's use of the Accused Products to perform the claimed method. As one example, Nearmap on OpenSolar infringes claim 1.
- 147. As described in Paragraphs 43-44, *supra*, Nearmap on OpenSolar includes a computer-implemented method for generating a roof estimate report.
- 148. Nearmap on OpenSolar receives a request for a roof estimate report for a roof of a building and receives location information regarding a building having the roof (such as through a user inputting address information in the upper left corner):



See https://www.youtube.com/watch?v=CUh664Wj3JY (Nearmap on OpenSolar).

149. As described in Paragraph 45, *supra*, Nearmap on OpenSolar receives a first aerial image of the building having the roof, and receives a second aerial image of the building having a roof. This is also shown in the bottom left corner, where "Nearmap Source Imagery" is received for vertical, northeast, southeast, southwest, and northwest views:



See https://www.youtube.com/watch?v=CUh664Wj3JY (Nearmap on OpenSolar).

- 150. In Nearmap on OpenSolar, the first and second aerial images of the building have been taken independent of each other, the first and second aerial images of the building provide different views of the roof from each other, the first aerial image of the building includes a top plan view of the roof and the second aerial image of the building includes an oblique perspective view of the roof, as shown in the image above.
- 151. Additionally, Nearmap describes how it "regularly flies 2-3 times per year" to obtain more aerial images, which are used in Nearmap on OpenSolar:

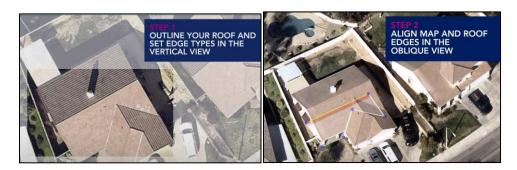
CURRENCY - Neramap regularly flies 2-3 times per year across the largest urban areas in the U.S. which means you'll be able to view seasonal and environmental changes over time. Many customers recognize this as a key value of having a Nearmap subscription. Instead of accessing imagery that can sometimes be up to 4-5 years old, customers can track land and project changes on at least a semiannual basis.

See Ex. 22.

152. Nearmap on OpenSolar calibrates at least one of the first and second

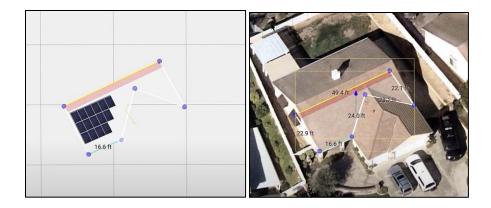
aerial images of the building using calibration information received from a calibration module. For example, aerial images are calibrated using information about the angles and height from which they were taken.

153. Nearmap on OpenSolar performs image analysis on the first and second aerial images of the building by correlating the first aerial image of the building with the second aerial image of the building, the correlating including registering pairs of points on the first and second aerial images of the building, each pair of points corresponding to a same point on the roof depicted in each of the first and second aerial images of the building. For example, Nearmap on OpenSolar instructs users to manually correlate the roof edges first in vertical view, and then align them to correlate in the oblique view. This process includes registering pairs of points in the two aerial images that correspond to the same roof points in both images:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 1:45, 2:45.

Nearmap on OpenSolar generates, based at least in part on the correlation of the first and second aerial images of the building, a three-dimensional model of the roof that includes a plurality of planar roof sections that each have a corresponding pitch, area, and edges:





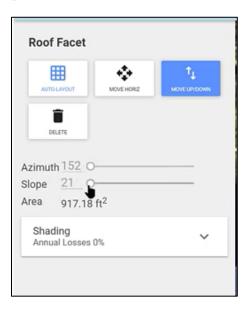
See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 4:19, 3:03.

155. Nearmap on OpenSolar determines a pitch of a plurality of sections of the roof, determines a direction of the pitch for each of the plurality of sections of the roof for which a pitch was determined, and generates a roof estimate report that includes at least one top plan view of the three-dimensional model annotated with numerical indications of the determined pitch and the direction of the pitch. For example, Nearmap on OpenSolar determines the pitch for a plurality of roof sections, such as through a pitch determination marker; based on the pitch determination marker, Nearmap on OpenSolar indicates the pitch, or "slope," of the planar roof section:

ON DEMAND MOBILITY

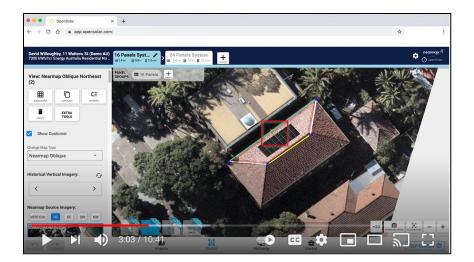
The intuitive and powerful SolarTouch design gives you greater control of your solar calculations and works on any device, allowing you the ability to create on-the-go. Calculate accurate roof slope and azimuth with Nearmap high-res oblique imagery and design multiple options to wow your customer.

See Ex. 18 (Nearmap on OpenSolar).



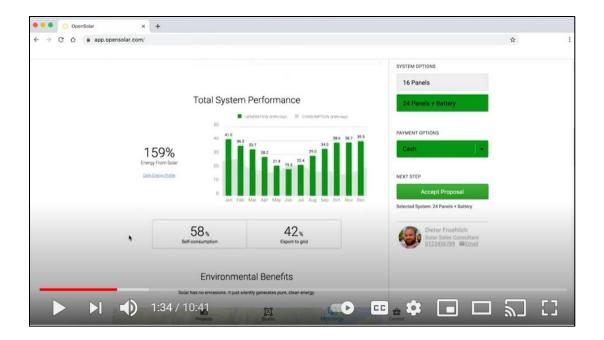
See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 3:24-28.

156. As shown below, Nearmap on OpenSolar determines a direction of the pitch for each of the roof sections for which a pitch was determined, as indicated by the green arrows showing the direction of the pitch:



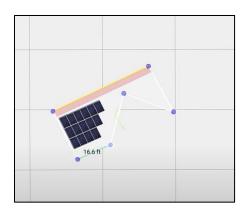
See https://www.youtube.com/watch?v=CUh664Wj3JY (Nearmap on OpenSolar).

157. Additionally, on information and belief, the direction of pitch must necessarily have been determined because the customer needs to know which direction the solar panels will face in order to calculate power and efficiency; if the pitch in the above photo was inverted, the solar panels would yield entirely different results not consistent with the rest of the report, which calculates system performance (that depends, *inter alia*, on roof pitch):



See https://www.youtube.com/watch?v=CUh664Wj3JY (Nearmap on OpenSolar).

158. Nearmap on OpenSolar determines a ridge line and a valley line of the roof, shown in the outlines below:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 4:20.

159. Nearmap on OpenSolar displays, on at least one top plan view of the three-dimensional model included in the roof estimate report, a ridge line in which

a property of the ridge line being a ridge line is conveyed by the ridge line being displayed in a first color (e.g., yellow) and displays, on at least one top plan view of the three-dimensional model included in the roof estimate report, a valley line in which a property of the valley line being a valley line is conveyed by the valley line being a second color different from the first color (e.g., green), as shown above.

160. As another example, in a top plan view of the 3D model, ridge lines and valley lines are indicated by different colors:



See

https://docs.nearmap.com/display/TUT/Module+3%3A+Design+with+Nearmap+on+OpenSolar (Nearmap on OpenSolar).

161. Nearmap on OpenSolar transmits the generated roof report, for example on or through a computer:

Opening a Project

Open any existing project by highlighting it in the projects list, and clicking **Open**. You can then close the Projects window and start working on your project.

Saving a Project

Projects are automatically saved as you make changes, so there is no need to manually save your projects.

The project will save the way you last left it. In other words, when you re-open the project it will be at the same zoom, rotation, base layer, etc. as it was when you last left it.

See Ex. 23.

- 162. On information and belief, Nearmap has had knowledge of the '568 Patent prior to the filing of the instant complaint, including because the '568 Patent is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. Nearmap's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that Nearmap monitors EagleView's website, products, roof reports, and patents. *See, e.g.*, Ex. 26. Additionally, Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '568 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.
- 163. In addition to directly infringing the '568 Patent, Nearmap has in the past and continues to indirectly infringe the '568 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap

knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least one claim of the '568 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '880 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '568 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

164. Nearmap's infringement of the '568 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '568 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '568 Patent. For example, subsequent to learning of the '568 Patent, Nearmap continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '568 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '568 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '568 Patent has been

and continues to be willful, entitling Pictometry to enhanced damages under 35 U.S.C. § 284.

- 165. Nearmap's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from Nearmap the damages sustained by EagleView as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 166. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.
- 167. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT VII - INFRINGEMENT OF THE '960 PATENT BY NEARMAP

- 168. Plaintiffs reallege paragraphs 1-167 as if fully set forth herein.
- 169. The USPTO duly and legally issued the '960 Patent on January 7, 2020.
- 170. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '960 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 171. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as

such, Nearmap has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least one claim of the '960 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

172. Claim 1 of the '960 Patent recites:

A process comprising:

receiving, by at least one computer processor that includes a calibration module stored in a non-transitory memory coupled to the at least one processor, a plurality of aerial image fields of a building having a roof including a first aerial image file taken from a first viewpoint of the building a second aerial image filed taken from a second viewpoint of the building different than the first viewpoint, wherein at least one of the first aerial image file and the second aerial image file has calibration information associated with the at least one of the first aerial image file and the second aerial image file;

determining, by any of the at least one computer processor, a pitch and an area of one or more roof sections of the roof based on an image analysis performed on the plurality of aerial image files, wherein the image analysis comprises:

constructing a three dimensional model of one or more roof sections by:

calibrating at least one of the first and second aerial image files using the calibration information associated with the at least one of the first aerial image file and the second aerial image file to convert a distance in pixels between two points on the respective aerial image file into a physical length;

identifying common reference points depicted in at least the first aerial image file and the second aerial image file;

identifying, for all such reference points, a location in three-

dimensional space by triangulating the reference points by projecting a first line originating from the first viewpoint through one of the reference points and a second line originating from the second viewpoint through the same reference point and determining an intersection of the first and second lines; and

determining physical length between at least two of the reference points in three-dimensional space based at least in part on the calibration;

generating, by any of the at least one computer processor a roof report that includes the pitch and the area of the one or more roof sections based on the determined pitch and area of the one or more roof sections wherein the roof report is useful as a guide to repair or replace the roof of the building, where in the pitch is indicative of a vertical rise of a roof section over a horizontal run of the roof section; and

outputting the roof report having the determined pitch therein.

- 173. Nearmap's Accused Products infringe at least claim 1 of the '960 Patent. As one example, Nearmap on OpenSolar infringes claim 1.
- 174. As described in Paragraphs 105-109, *supra*, NearMap on OpenSolar comprises a process in which it receives, by at least one computer processor that includes a calibration module stored in a non-transitory memory coupled to the at least one processor, a plurality of aerial image fields of a building having a roof including a first aerial image file taken from a first viewpoint of the building a second aerial image filed taken from a second viewpoint of the building different than the first viewpoint, wherein at least one of the first aerial image file and the second aerial image file has calibration information associated with the at least one of the first

aerial image file and the second aerial image file.

175. The calibration information associated with the aerial images includes, for example, the geolocation and other data (such as height and angle) associated with them. For example, Nearmap records the perspectives (*e.g.*, angles, height) from which its aerial images were taken:

GPS coordinates and PPP

Our capture process uses GPS coordinates, which are further refined using PPP (Precise Point Positioning). Because of this, the resulting imagery is georeferenced using ITRF2014 at the epoch of capture.

For example, the epoch of a capture from May 1, 2018 is ITRF2014(2018.329). With ITRF2014 being an earth-fixed datum (as opposed to plate-fixed datums such as GDA94 or NAD83), imagery aligned to ITRF is subject to continental drift. For example, in Australia the movement is 70mm per year and some parts of the US move at about 14mm per year. In order to compensate for the continental drift, we provide plate-fixed projections through WMS and reverse the shift by a variable amount depending on the capture epoch. Those projections are based on either GDA94/GDA2020 (Australia) or NAD83 (US). As a consequence, we encourage you to use one of the plate-fixed projections in order to minimise misalignment in your GIS application, especially using surveys captured years apart.

This information should aid you in correctly georeferencing our imagery. We found that in most cases, it is sufficient to use one of our NAD83 or GDA94/GDA2020 projections to eliminate positional errors due to datum differences.

Nearmap also uses ground control points to verify our accuracy claims. Characteristics of our ground control points include good visibility, precise location, accurate location, and open ground location. In essence, this means that the sample of ground points used are clearly identifiable in our aerial imagery without ambiguity, have a high accuracy of less than 2cm, and are not subject to terrain distortions.

See Ex. 12.

176. As described in Paragraphs 105-111, *supra*, Nearmap on OpenSolar determines, by any of the at least one computer processor, a pitch and an area of one or more roof sections of the roof based on an image analysis performed on the plurality of aerial image files.

177. As described in Paragraphs 105-111, *supra*, in Nearmap on OpenSolar, the image analysis comprises constructing a three dimensional model of one or more roof sections by calibrating at least one of the first and second aerial image files using the calibration information associated with the at least one of the first aerial image file and the second aerial image file to convert a distance in pixels between two points on the respective aerial image file into a physical length; identifying common reference points depicted in at least the first aerial image file and the second aerial image file; identifying, for all such reference points, a location in threedimensional space by triangulating the reference points by projecting a first line originating from the first viewpoint through one of the reference points and a second line originating from the second viewpoint through the same reference point and determining an intersection of the first and second lines; and determining physical length between at least two of the reference points in three-dimensional space based at least in part on the calibration.

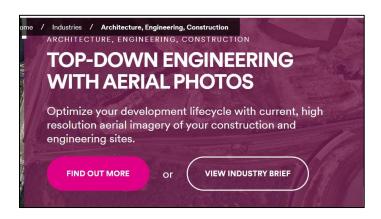
178. For example, Nearmap technology, which is used in at least some of Nearmap's imagery, triangulates the reference points by projecting lines from the first and second reference points and determining an intersection. For example, the aerial images can contain "textured mesh," which is defined as follows:

Textured Mesh	3D triangulated surface mesh with photo realistic
	textures

See Ex. 24.

- 179. As described in Paragraph 112, *supra*, Nearmap on OpenSolar generates, by any of the at least one computer processor a roof report that includes the pitch and the area of the one or more roof sections based on the determined pitch and area of the one or more roof sections.
- 180. The roof report generated by Nearmap on OpenSolar is useful as a guide to repair or replace the roof of the building, where in the pitch is indicative of a vertical rise of a roof section over a horizontal run of the roof section:
 - Collect and annotate measurements. Verify repair estimates and right-size risk with accurate measurements of roofs, structures, facades and buildings

See Ex. 20.



See Ex. 21.

- 181. As described in Paragraphs 112-113, *supra*, Nearmap on OpenSolar outputs the roof report having the determined pitch therein.
- 182. On information and belief, Nearmap has had knowledge of the '960 Patent prior to the filing of the instant complaint, including because the '960 patent is a direct continuation of Application No. 12/148,439, now U.S. Pat. No. 8,145,578, which is identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. Nearmap's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that Nearmap monitors EagleView's website, products, roof reports, and patents. *See, e.g.*, Ex. 26. Additionally, Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '960 Patent, in light of EagleView's recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. *See, e.g.*, Ex. 27.
- 183. In addition to directly infringing the '960 Patent, Nearmap has in the past and continues to indirectly infringe the '960 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap knew or should have known that use of rooftop aerial measurement products,

including but not limited to the Accused Products, by its end users infringes at least one claim of the '960 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '960 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '960 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

184. Nearmap's infringement of the '960 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '960 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '960 Patent. For example, subsequent to learning of the '960 Patent, Nearmap continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '960 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '960 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '960 Patent has been and continues to be willful, entitling EagleView to enhanced

damages under 35 U.S.C. § 284.

- 185. Nearmap's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from Nearmap the damages sustained by EagleView as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 186. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.
- 187. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT VIII - INFRINGEMENT OF THE '149 PATENT BY NEARMAP

- 188. Plaintiffs reallege paragraphs 1-187 as if fully set forth herein.
- 189. The USPTO duly and legally issued the '149 Patent on June 16, 2020.
- 190. Nearmap has directly and indirectly infringed and continues to directly and indirectly infringe the '149 Patent, in connection with rooftop aerial measurement products, including but not limited to the Accused Products.
- 191. Nearmap makes and uses rooftop aerial measurement products, including but not limited to the Accused Products, within the United States, and as such, Nearmap has directly infringed and continues to directly infringe, either

literally or under the doctrine of equivalents, at least one claim of the '149 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(a).

192. Claim 1 of the '149 Patent recites:

A computer-implemented method, comprising:

displaying an aerial image of a building having a roof comprising a plurality of planar roof sections that each have a corresponding pitch;

displaying an interactive user interface control configured to be manipulated by an operator to align with a slope of a first planar roof section of the plurality of planar roof sections in order to specify pitch of the first planar roof section, wherein the interactive user interface control is overlaid on the aerial image of the building having the roof;

receiving, based on alignment of the displayed interactive user interface control, an indication of the pitch of the first planar roof section of the plurality of planar roof sections of the roof of the building;

modifying a model of the roof based on the received indication of the pitch of the first planar roof section; and

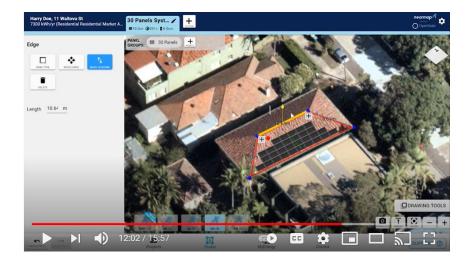
generating and output a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values annotated with corresponding slope, pitches, total area of the roof, identification and measurement of ridges and valleys of the roof, different elevation views rendered from a 3D model of the roof, and lengths of corresponding roof section for each line segment of edges of a plurality of planar roof sections of the roof,

wherein the generated roof estimate report is provided for repair or construction of a corresponding roof structure of the building.

193. Nearmap's Accused Products infringe at least claim 1 of the '149 Patent, including by Nearmap's use of the Accused Products to perform the claimed

method. As one example, Nearmap on OpenSolar infringes claim 1.

- As described in Paragraphs 43-51, *supra*, Nearmap on OpenSolar uses a computer-implemented method comprising displaying an aerial image of a building having a roof comprising a plurality of planar roof sections that each have a corresponding pitch, displaying an interactive user interface control configured to be manipulated by an operator to align with a slope of a first planar roof section of the plurality of planar roof sections in order to specify pitch of the first planar roof section, wherein the interactive user interface control is overlaid on the aerial image of the building having the roof, and receiving, based on alignment of the displayed interactive user interface control, an indication of the pitch of the first planar roof section of the plurality of planar roof sections of the roof of the building.
- 195. As described in Paragraphs 43-51, *supra*, Nearmap on OpenSolar modifies a model of the roof based on the received indication of the pitch of the first planar roof section.
- 196. This process is further shown in the below depiction of the user interface of Nearmap on OpenSolar, in which a user can modify the wireframe to accurately reflect the pitch of the roof section containing the solar panels:

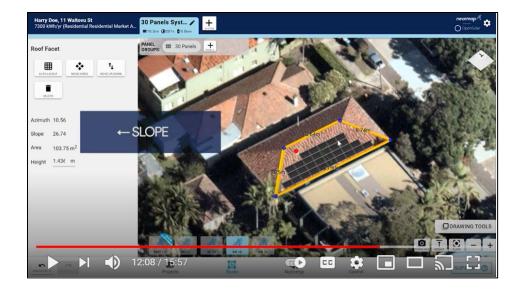


See https://www.youtube.com/watch?v=5R4tCSnthaw (Nearmap on OpenSolar).

197. Based on the pitch determination marker, Nearmap on OpenSolar indicates the pitch, or "slope," of the planar roof section:



See https://www.youtube.com/watch?v=XDwZniue-TU (Nearmap on OpenSolar) at 3:24-28.



See https://www.youtube.com/watch?v=5R4tCSnthaw (Nearmap on OpenSolar).

- 198. As described in Paragraphs 112-113, *supra*, Nearmap on OpenSolar generates and outputs a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values annotated with corresponding slope, pitches, total area of the roof, identification and measurement of ridges and valleys of the roof, different elevation views rendered from a 3D model of the roof, and lengths of corresponding roof section for each line segment of edges of a plurality of planar roof sections of the roof.
- 199. The roof report generated and outputted by Nearmap on OpenSolar is provided for repair or construction of a corresponding roof structure of the building. For example, the solar roof report is used for construction of solar panels on the roof structure of the building.

200. On information and belief, Nearmap has had knowledge of the '149 Patent prior to the filing of the instant complaint. For example, the '149 patent is a family member of U.S. Pat. No. 9,129,376, U.S. Pat. No. 8,818,770, and U.S. Pat. No. 8,170,840, all of which were asserted by EagleView in a recent successful litigation against Xactware Solutions, Inc. and Verisk Analytics, Inc. in the District of New Jersey. See, e.g., Ex. 27. Thus, Nearmap would have been aware of the substantial press coverage of EagleView's patent portfolio as it relates to roof reports, which includes the '149 Patent. Additionally, the '770 and '840 Patents, which are family members of the '149 Patent, are identified on EagleView's website and roof reports as covering EagleView's technology and roof reports. Nearmap's product is remarkably similar to, and appears to have been copied from, EagleView's technology and roof reports, confirming that Nearmap monitors EagleView's website, products, roof reports, and patents. See, e.g., Ex. 26.

201. In addition to directly infringing the '149 Patent, Nearmap has in the past and continues to indirectly infringe the '149 Patent by inducing direct infringement by others, such as end users of rooftop aerial measurement products, including but not limited to the Accused Products. As set forth above, Nearmap knew or should have known that use of rooftop aerial measurement products, including but not limited to the Accused Products, by its end users infringes at least

one claim of the '149 Patent prior to the filing of the instant complaint. Nearmap knowingly induced such use of those products in a manner that infringes the '149 Patent, including through at least promotional, advertising, and instructional materials, and Nearmap had the requisite intent to encourage such infringement. As such, Nearmap has indirectly infringed and continues to indirectly infringe at least one claim of the '149 Patent under one or more subsections of 35 U.S.C. § 271, including § 271(b).

202. Nearmap's infringement of the '149 Patent has been and continues to be willful. Nearmap has acted with knowledge of the '149 Patent and without a reasonable basis for a good-faith belief that it would not be liable for infringement of the '149 Patent. For example, subsequent to learning of the '149 Patent, Nearmap continued to make and use rooftop aerial measurement products, including but not limited to the Accused Products, within the United States in a manner that infringes the '149 Patent. Nearmap has disregarded and continues to disregard its infringement and/or an objectively high likelihood that its actions constitute infringement of the '149 Patent. This objectively-defined risk was known or is so obvious that it should have been known to Nearmap. Nearmap's infringement of the '149 Patent has been and continues to be willful, entitling EagleView to enhanced damages under 35 U.S.C. § 284.

- 203. Nearmap's acts of infringement have caused damage to EagleView, and EagleView is entitled to recover from Nearmap the damages sustained by EagleView as a result of Nearmap's wrongful acts in an amount subject to proof at trial.
- 204. Nearmap's acts of infringement have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to EagleView for which there is no adequate remedy at law.
- 205. This case is exceptional, entitling EagleView to an award of attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully pray for the following relief:

- A. For entry of judgment by this Court against Nearmap and in favor of Plaintiffs in all respects, including that Nearmap has and continues to directly infringe and/or indirectly infringe, by way of inducement, the '152, '880, '518, '961, '737, '568, '960, and '149 Patents;
- B. For an order permanently enjoining Nearmap, and its officers, directors, shareholders, agents, servants, employees, attorneys, all parent, subsidiary and affiliate corporations, their successors in interest and assigns, and all other entities and individuals acting in concert with it or on its behalf, including customers, from

making, importing, using, offering for sale, and/or selling any product or service falling within the scope of any claim of the '152, '880, '518, '961, '737, '568, '960, and '149 Patents, including the Accused Products, or otherwise infringing any claim of the '152, '880, '518, '961, '737, '568, '960, and '149 Patents;

- C. Alternatively, in the event that an injunction does not issue, that this Court award a compulsory ongoing future royalty;
- D. For damages arising from Nearmap's infringement of the '152, '880, '518, '961, '737, '568, '960, and '149 Patents, including lost profits suffered by Plaintiffs as a result of Nearmap's infringement and in an amount not less than a reasonable royalty, together with pre-judgment and post-judgment interest;
- E. That this Court declare Nearmap's infringement to be willful and award increased damages in an amount not less than three times the damages assessed for Nearmap's infringement to Plaintiffs for the period of such willful infringement pursuant to 35 U.S.C. § 284;
- F. That this Court declare this to be an exceptional case pursuant to 35 U.S.C. § 285 and award Plaintiffs their attorneys' fees;
 - G. That Plaintiffs be awarded costs of court; and
- H. For such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. 38(b), Plaintiffs respectfully demand a jury trial on any and all issues triable as of right by a jury in this action.

Dated: May 4, 2021 Respectfully submitted,

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INDEX OF EXHIBITS

- 1. Exhibit 1 US 8,209,152
- 2. Exhibit 2 US 8,542,880
- 3. Exhibit 3 US 8,593,518
- 4. Exhibit 4 US 8,670,961
- 5. Exhibit 5 US 9,135,737
- 6. Exhibit 6 US 9,514,568
- 7. Exhibit 7 US 10,528,960
- 8. Exhibit 8 US 10,685,149
- 9. Exhibit 9 2020-09-09 [901] Opinion Denying New Trial
- 10. Exhibit 10 EagleView One Small Company Reinvents a \$30 billion Market
- 11. Exhibit 11 EAGLE EYE California Business Journal
- 12. Exhibit 12 Accuracy Product Documentation Knowledge Hub
- 13. Exhibit 13 16136585 app. history excerpt 2019-07-02 IDS
- 14. Exhibit 14 Mapbrowser Cheat Sheet
- 15. Exhibit 15 Location Tool Product Documentation Knowledge Hub
- 16. Exhibit 16 Product-Datasheet Oblique
- 17. Exhibit 17 Orthographic View & Aerial Mapping Nearmap US
- 18. Exhibit 18 Solar Estimation & Prospecting Tools Nearmap US
- 19. Exhibit 19 Survey Date and Photo Time Product Documentation Knowledge
- 20. Exhibit 20 Aerial Location Data and AI for Insurance Nearmap US
- 21. Exhibit 21 Architecture, Engineering, Construction Maps Nearmap US
- 22. Exhibit 22 Are You Ready for Better Aerial Imagery
- 23. Exhibit 23 Projects Tool Product Documentation Knowledge Hub
- 24. Exhibit 24 GLOSSARY Product Documentation Knowledge Hub
- 25. Exhibit 25 Current Maps, Aerial View Map Contact Nearmap US
- 26. Exhibit 26 Geospatial software, aerial imagery and analytics EagleView
- 27. Exhibit 27 EagleView's Adventures in IP Earn Co. \$375M Enhanced Win